

# SCH wages war against waste with new exhibit

Space Center Houston will open a new exhibit Saturday designed to teach kids and their parents how to make Earth a greener, cleaner, safer place to live.

EarthQuest will take visitors on an interactive adventure through today's environment from inside a giant video game. Children who visit the exhibit will walk through a 10-foot television screen, step into video games and use lasers to fight a battle against the red-eyed, evil waste monster Toxicus, a villain composed entirely of garbage.

EarthQuest presents children and adults with many ideas for making everyday environmentally friendly choices in an effort to protect our most precious resource — planet

Earth. The exhibit teaches children to begin making conscious choices to protect not only the environment today, but their future on Earth as well.

EarthQuest visitors are immediately met by J.D., a friendly robotic junkyard dog who enlists their help to defeat Toxicus. To win the game, visitors must travel through each of EarthQuest's five zones: neighborhood, home, shopping, transportation and recycling. Each zone is a realistic simulation containing actual environmental problems and suggestions on how the problems can be solved.

The Neighborhood Zone depicts a residential street on trash pick-up day, with

examples of how much garbage an individual produces in an average day or week, and a scavenger hunt locates recyclable "treasures" which can be recycled.

The Home Zone demonstrates how a household can run more efficiently and with less waste of Earth's natural resources by showing how certain products use more energy than others, while the Shopping Zone teaches visitors which products are Earth-friendly in terms of packaging, content and recycling. In the Transportation Zone, interactive video selections teach guests about alternative fuels that can be used to save the Earth's resources and create less pollution.

The Recycle Zone features a hands-on recycling activity that teaches kids how to sort glass, plastic, aluminum and paper. A video teaches the principles of how these used materials are turned into recycled products. Visitors finish their EarthQuest experience in the End Zone, where they are faced with the challenge of destroying Toxicus, by challenging visitors to identify and zap landfill items that could have been reused, reduced or recycled.

EarthQuest will be showcased at SCH through January 1997, and admission into the exhibit is free with the cost of admission. For more information call Space Center Houston at 244-2100.

## JSC awards translation contract

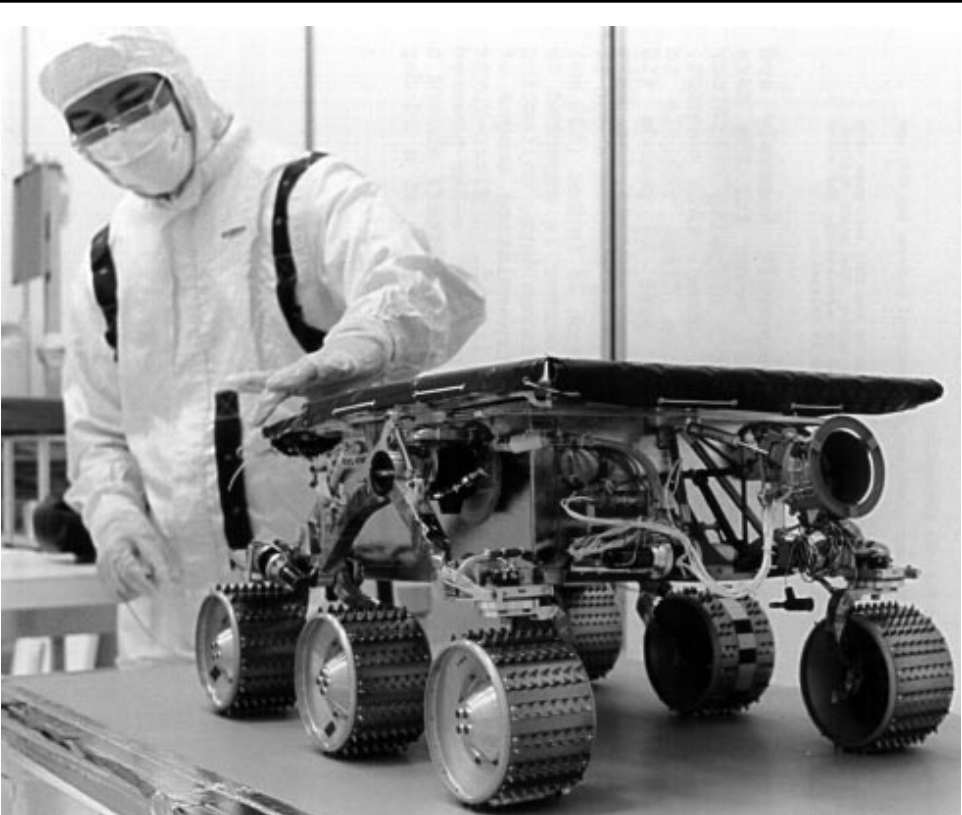
JSC has selected TechTrans International, Inc., for a six-year, \$39 million contract to provide Russian language and logistics services.

TTI will provide Russian language interpretation, translation, language training and logistics services to JSC. The cost and fee awarded in the six-year contract is divided into a three-year base period and three one-year option periods. NASA and the Russian Space Agency are currently cooperating in an international program leading to the development of the International Space Station.

## Halloween dance tickets on sale

The Employee Activities Association will host a Halloween dance Oct. 26 at the Gilruth Center.

The Southern Cross Band will perform and costumes are encouraged. Tickets are on sale through Oct. 23 at the Exchange Store at a cost of \$15, which includes dinner. For more information contact Mavis Ikenhans at 244-9644.



**MARS TRAVELER—Sojourner, the small 25-pound, six-wheeled robotic explorer is now being readied for launch at Kennedy Space Center's spacecraft assembly and encapsulation facility. The Mars Pathfinder is expected to launch Dec. 2. The 11-inch rover will be deployed to roam across an ancient Martian flood plain after the Mars Pathfinder lander touches down on the planet's surface July 4, 1997.**

## Seminars offer look at ISO 9000 standards, plan

A series of four one-hour ISO 9000 awareness seminars are being offered to help acquaint NASA and contractor employees with the quality standards and the ISO implementation effort at JSC.

All NASA and contractor employees are welcome to attend one of the Teague Auditorium sessions, which will be from 8:30 -9:30 a.m. and 10-11 a.m. Oct. 7 and from 8:30-9:30 a.m. and 10-11 a.m. Oct. 9.

"These short seminars will help build awareness about what ISO is and the center's implementation plan," said Glen Van Zandt of the Human Resource Development Branch. "In the weeks following, we'll be providing further training in areas such as auditing and documentation for those that need it."

The training courses follow on the heels of the establishment of the ISO 9000 Project Office. This office—headed by Director Charlie Harlan—brings a top-level focus to the center's effort to become certified to the ISO 9000 family of standards. The new office will be responsible for managing JSC's transition from the current NASA Quality Management System to the internationally recognized ISO 9000 standards, with third party certification expected in about one year.

There is no need to "sign-up" to attend a session. For more information about the seminars, call Glen Van Zandt at x33069.

## NASA instrument snaps global ozone image

Daily global mapping of the Earth's ozone layer from space has resumed with the acquisition of the first image from the U.S. Total Ozone Mapping Spectrometer instrument aboard the Japanese Advanced Earth Observing Satellite earlier this month.

"We are extremely pleased with the quality of this first image" said P. K. Bhartia, TOMS project scientist at Goddard Space Flight Center. "We're looking forward to continuing our monitoring of the global ozone situation and especially the upcoming season in the Antarctic."

ADEOS continues the series of TOMS total ozone and volcanic sulfur dioxide observations that began with the Nimbus-7 satellite in 1978 and continued through the

operation of a TOMS on a Russian Meteor-3 satellite, until that instrument ceased functioning in December 1994.

Data from another TOMS flying on the launched NASA TOMS-Earth Probe complements the global ADEOS data by providing imagery of atmospheric features related to urban pollution, biomass burning, forest fires, desert dust and small volcanic eruptions, in addition to ozone measurements.

The principal mission of TOMS/ADEOS is to monitor global ozone trends during the period when CFC-related depletion is predicted to be near its maximum.

"Stratospheric concentrations of chlorine from CFC's are expected to peak near the end of the century and then decline as a

result of the Montreal Protocol," said Arlin Krueger, principal investigator for TOMS/ADEOS. "TOMS/ADEOS will help us track this prediction. It also will continue to measure the concentrations of sulfur dioxide in the atmosphere in the wake of volcanic eruptions, thus extending the existing database of more than 100 eruptions."

TOMS complements Japanese instruments on ADEOS. The Improved Limb Atmospheric Sounder measures the vertical profiles of ozone and other gases in polar regions, while the Interferometric Monitor for Greenhouse Gases measures ozone beneath the orbital track, and the Retroreflector In Space determines trace gas profiles as it passes over laser stations.

## Retirement program deadline approaches

The Careers Plus+ Retirement Program, designed to give retirement eligible employees more options to consider when making retirement decisions, is scheduled to end on Thursday.

Employees who wish to take advantage of one of the Careers Plus+ options must make all preparations to retire by Thursday. However, to accommodate as many retirement eligible workers as possible, employees who have signed work/service agreements in place before Thursday may establish actual retirement dates as late as Jan. 3.

The program, which has been in place since last February, has received positive feedback from those eligible to retire and, to date, 27 employees have retired under one of the Careers Plus+ options. For more information contact a Human Resource representative at x36251 or Employee Services at x32681.

## Performance review to take place on anniversary dates

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Supervisors immediately will begin establishing new performance plans. Since employees must be under performance plans for 90 days before they may be appraised and supervisors have just completed appraisals for all employees, there will be no appraisals for the remainder of this year. Employees with anniversary dates that fall between Aug. 1 and Dec. 31 will be appraised

on their anniversary dates in 1997. Starting Jan. 1, employees may be appraised according to their anniversary dates once they have been under the new performance plan.

"We've been given the option of how we phase this in, and we want to get on with the implementation," Hayes said. "We have been successful in working out details with the union, and we are going to work together over the next few months to

make sure it is successful."

Employees still will receive a written narrative summary every year, and will sign the performance planning and appraisal form with their supervisors, documenting the planning discussion (at the beginning of the rating period), the progress review (in the middle of the rating period) and the final rating (at the end of the rating period).

"Performance appraisal changes

are only one aspect of this," Hayes added. "What we intend to do is take a broader look at performance management. We intend to come up with some new features in career development and rewards and recognition over the next several months."

To help employees learn more about the new system, representatives from the Human Resources Office will conduct organizational briefings over the next few weeks.

In addition, employee briefings will be held in the Bldg. 30 Auditorium from 1-3 p.m. Wednesday, 9-11 a.m. Friday, and 9-11 a.m. Oct. 17.

Anyone who has questions about the new system should contact their Human Resources Representative at x36251, or call the Human Resources Hotline at x30616. Answers to commonly asked questions are available via the Internet at <http://hro.jsc.nasa.gov/hr>

## Experiments may improve Earth soil sites

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back on Earth studied three dry soil specimens under different pressures. The insights offered may be far-reaching. The results of the set of experiments aboard *Atlantis* and later missions could lead to improved selection and preparation of building sites, better management of undeveloped lands, and improve handling of materials in chemical, agricultural and other industries.

## Space News Roundup

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## STS-79 experiments to help scientists on Earth

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pre-planned time. Soon after the crew members completed their welcoming ceremony, they went to work, hauling bags of water and other supplies from the shuttle's Spacehab module into the Mir. More than 4,000 pounds of equipment and supplies were transferred to Mir, and another 2,000 pounds of experiment samples were being returned to Earth. Among the equipment transferred were three experiments, the Biotechnology System, the Material in Devices as Superconductors and the Commercial Generic Bioprocessing Apparatus.

Readdy and Pilot Terry Wilcutt released hooks and latches holding *Atlantis* to Mir at 8:33 p.m. CDT Monday, ending the five days of docked operations. After performing a fly-around of the Russian outpost at a distance of about 400 feet, they fired the shuttle's maneuvering jets to separate the two vehicles until *Atlantis'* return in January. Readdy told flight controllers that it was "kind of sad" to be leaving Mir behind.

Throughout the flight, Mission Specialists Jay Apt, Tom Akers and Carl Walz worked with a number of experiments in the first double Spacehab module. Among them

were the Active Rack Isolation System, a prototype of a system designed to dampen the effects of crew movements and thruster firings on sensitive experiments. STS-79 also work with the Mechanics of Granular Materials experiment, which is designed to help scientists understand the effects of compressing and decompressing granular materials. The Extreme Temperature Translation Furnace studied the influence of microgravity on liquid phase sintering of metals at 1,600 degrees Celsius. The experiment could lead to the development of purer alloys.